


**BACKGROUND INFORMATION**

Sonic logs are widely used, often in combination with other logs, to provide porosity, permeability and geomechanical properties of rocks. Under suitable borehole conditions and formations, Compressional (P), Shear (S), Stoneley and Tube waves arrivals can be detected.

The tool can only be operated in a fluid-filled hole.

**FEATURES**

	SENSORS	TOOL SPECIFICATIONS
	<p>Acoustic Sensor:</p> <ul style="list-style-type: none"> <li>• Transducer: Ceramic piezoelectric</li> <li>• Sonic wave sampling rate:                             <ul style="list-style-type: none"> <li>- Normal mode 4 μsec</li> <li>- Extended mode 20 μsec</li> </ul> </li> <li>• Sonic wave recording time:                             <ul style="list-style-type: none"> <li>- Normal mode 4ms</li> <li>- Extended mode 16 ms</li> </ul> </li> <li>• Sonic wave dynamic range: 16 bits</li> </ul>	<p><b>Length:</b> 2.14 m</p>
		<p><b>Diameter:</b> 50 mm</p>
		<p><b>Standard configuration 1Tx-4Rx</b></p> <ul style="list-style-type: none"> <li>- Tx-Rx1 spacing : 60cm</li> <li>- Rx-Rx spacing : 20cm</li> </ul>
		<p><b>Max. Temperature:</b> 70° C</p>
		<p><b>Max. Pressure:</b> 200 bar (2900 PSI)</p>
		<p><b>Weight:</b> 18 kg</p>
		<p><b>Logging Speed:</b> Variable – function of resolution and borehole diameter.</p>

QL40-FWS FULL WAVEFORM SONIC		PRODUCT DESCRIPTION
	<p><b>Application:</b></p> <ul style="list-style-type: none"> <li>• Cased-hole <ul style="list-style-type: none"> <li>- Cement bond logging (CBL)</li> </ul> </li> <li>• Open-hole <ul style="list-style-type: none"> <li>- Porosity evaluation</li> <li>- Permeability</li> <li>- Lithology identification</li> <li>- Variation of rock strength</li> <li>- Calculation of rock mechanical properties (Elastic moduli, Poisson's ratio, Shear modulus, Young modulus, Bulk modulus and compressibility)</li> <li>- Identification and hydraulic characterization of fractures</li> </ul> </li> </ul>	

\*Source: <http://www.mountsopris.com>

